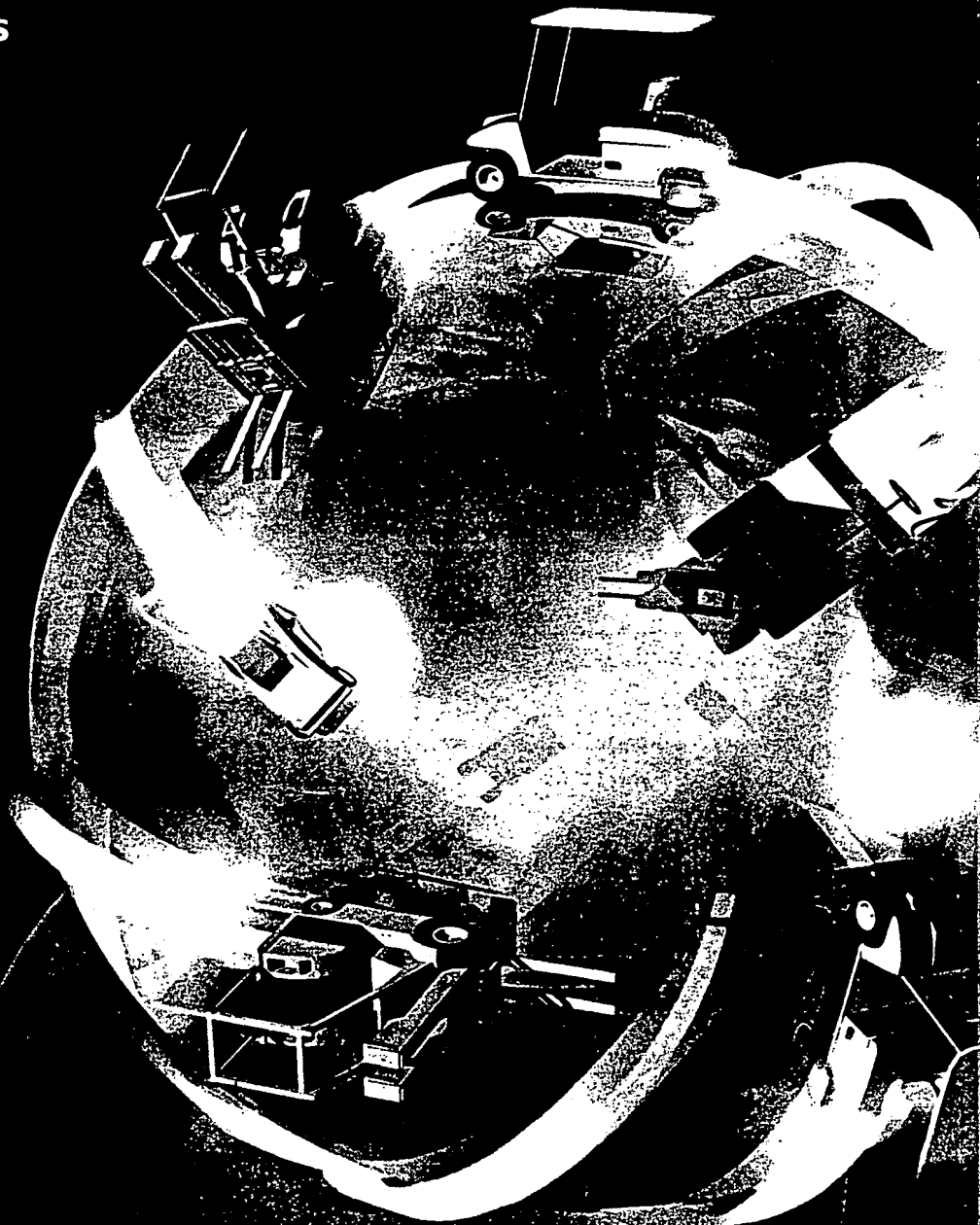


The Changing World of Industrial and Specialty Electric Vehicles



The Second Annual Conference

August 18-20, 1999

The Hilton Hotel at

Walt Disney World Village

Lake Buena Vista, Florida

Exhibit I

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**THE CHANGING WORLD OF
INDUSTRIAL AND SPECIALTY ELECTRIC
VEHICLES**

The Second Annual Conference

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The Hilton Hotel at Walt Disney World Village

Lake Buena Vista, Florida

THE CHANGING WORLD OF INDUSTRIAL AND SPECIALTY ELECTRIC VEHICLES

DAY 1 – Thursday, August 19, 1999

7:00 **Continental Breakfast & Registration**

7:45	Welcome	<i>Conference Chairman</i>	Gloria Krein, EPRI Bob Hawkins, Alabama Power (SoCo)
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8:00	Keynote Speaker <i>Emerging Business Opportunities in the New Millennium</i>		C.D. "Rapp" Rappleyea, Chairman & CEO New York Power Authority
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9:00	Regulatory & Incentives Update The National Perspective The California Perspective Los Angeles Basin Incentive Program	<i>Moderator</i>	Coleen Tessema, SCE Kateri Callahan, EVAA Scott Rowland, CARB Michael Bogdanoff, SCAQMD
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10:30 **Break**

11:00	Lift Truck Session Material Handling Distributors Manufacturer's Perspective Manufacturer: New Technologies	<i>Moderator</i>	Don Caridas, AEP Liz Richards, MHEDA Tom Hoying, Crown Chris Goode, Clark
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12:30 **Luncheon/Exhibits**
Located in Exhibit Hall

2:00	Bridging Automotive Research Automotive Controllers Solid State Devices Motors & Generators	<i>Moderator</i>	Bud Clark, C&SW Allan Gale, Ford Motor Company Fred Flett, International Rectifier Patrick J. McCleer, McCleer Power
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3:00 **Break**

3:15	Batteries/Opportunity Charging Battery Update: Ovonic Battery Update: Yuasa Battery Life Testing 1998 Opportunity Charging Demo Projects Infrastructure Issues The Business Case for Fast Charging: Perspectives	<i>Moderator</i>	Bob Bellenger, Alabama Power (SoCo) Greg Fritz Karyl McKnight Naum Pinsky, SCE Gloria Krein, EPRI Ernie Morales, SCE Jay Gill, AeroVironment Stephen Schey, Edison Source
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5:30 **Reception**
Located in Exhibit Hall

DAY 2 – August 20, 1999

7:00	Continental Breakfast		
7:45	Welcome	<i>Conference Chairman</i>	Bob Hawkins, Alabama Power (SoCo)
8:00	Utility Vehicles, Neighborhood Vehicles and City Cars Utility Vehicles Neighborhood Vehicles City Cars	<i>Moderator</i>	<i>Kerry-Jane King, NYPA</i> Karl Thidemann, Solectria B. Samara, Taylor-Dunn Barry Cook, E-Z-GO Graham Hill, Global Elec. MotorCars Bryan Taylor, Bombardier James Geer, Ford Motor Company
10:30	Break		
11:00	Outdoor Power Equipment Production Use of Automated Guided Vehicles in Manufacturing Outdoor Equipment	<i>Moderator</i>	<i>Jerry Lonergan, KEURP</i> Larry Toraason, John Deere Mark Gebhardt, CORECON Engineered Solutions
11:30	Scrubbers & Sweepers Commercial & Industrial Marketplace	<i>Moderator</i>	<i>DeJim Lowe, TVA</i> Mark Fleigle, Tennant Company
12:00	Luncheon/Exhibits <i>Located in Exhibit Hall</i>		
1:00	Propulsion Systems Applications to Non-Road Equipment	<i>Moderator</i>	<i>Sal Termini, CSW Total EV</i> Kevin Barnes, Unique Mobility
1:30	Airports: Improved Technologies John Wayne Airport United Airlines	<i>Moderator</i>	<i>Layla Sandell, EPRI</i> Scotty Stewart Ralph Timan
2:30	Break		
2:45	Marketing Transfer Green Pricing and the Non-Road Market	<i>Moderator</i>	<i>Alex Hapka, Kansas City P&L</i> Terry Peterson, EPRI
3:15	Bicycles & Portable EVs Bicycles Bicycles/Police Departments Successful Promotions	<i>Moderator</i>	<i>Tonya Shadduck, CSW Total EV</i> Richard Allen, EV Global East Kevin Moran, Smith & Wesson Tonya Shadduck, CSW Total EV
4:15	Drawing/Adjournment		Eric Heim, EPRI Bob Hawkins, Alabama Power (SoCo)

KEVIN A. BARNES
UNIQUE MOBILITY, INC.

Kevin A. Barnes is the Manager of Product Sales at Unique Mobility, Inc. and is responsible for product and engineering services sales. Mr. Barnes also coordinates many of Unique's new business and product development programs.

While working for Unique, Mr. Barnes has been involved with many electric and hybrid/electric vehicle applications ranging from bicycles, scooters and wheelchairs to commuter cars and transit busses. Kevin joined Unique in 1988 where he was responsible for product development testing and pioneered Unique's involvement in solar racing and university electric and hybrid/electric vehicle competitions.

Mr. Barnes is a graduate of the Colorado School of Mines and holds a B.S. degree in power electronics and controls with a minor in alternative energy.

Unique Mobility, Inc.

***Driving the World
with
Electric Power***



Company Profile



Corporate Headquarters, Golden CO

Developer and manufacturer of

- *brushless PM motors*,
- *electronic controls* and
- *precision gear sets*

for automotive, industrial
and aerospace applications

- FY 1999 Sales: \$15.8 million
- Total assets: \$27.2 million
- Employees: 190
- Exchanges: American (AMEX:UQM), Berlin, Boston,
Chicago, Frankfurt and Pacific



Corporate Structure



ASIA



Taiwan UQM Electric Co., Ltd.

Tao-Yuan, Taiwan ROC
JV & Licensee



Unique Mobility, Inc.

Golden, Colorado

Product development

EUROPE

Unique Mobility Europa GmbH

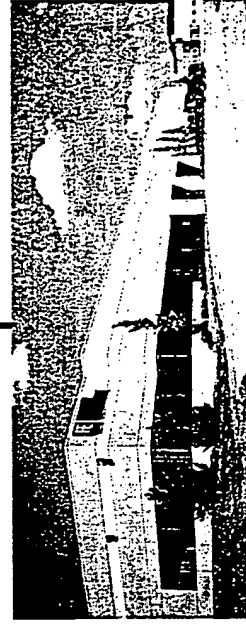
Mittwieda, Germany
JV & Licensee



Unique Power Products, Inc.

Frederick, Colorado

Motor & gear manufacturing



Franklin Manufacturing Company

St. Charles, Missouri

Electronics manufacturing

Mission

Build on Unique's technology base to

become a leading provider of advanced

vehicle power systems for energy

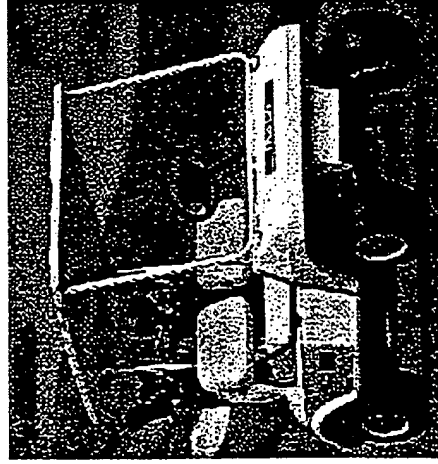
efficient, environmentally clean

transportation throughout the world.

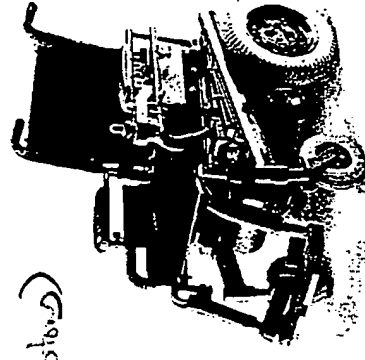
UQM

Low Power Vehicles Existing Markets

$< 100 \text{ V}$
 $< 30 \text{ kW}$



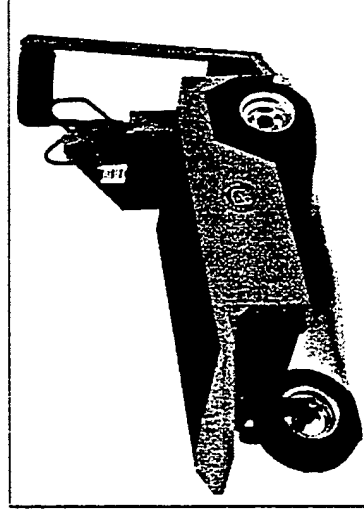
- Wheelchairs *Invacare (produced several thousand motors)*
- Golf carts
- Floor maintenance/sweepers
- Warehouse/utility vehicles
- Fork trucks
- Automated guide vehicles



Today

Commodity propulsion systems

- Brush motors
- Lead-acid batteries

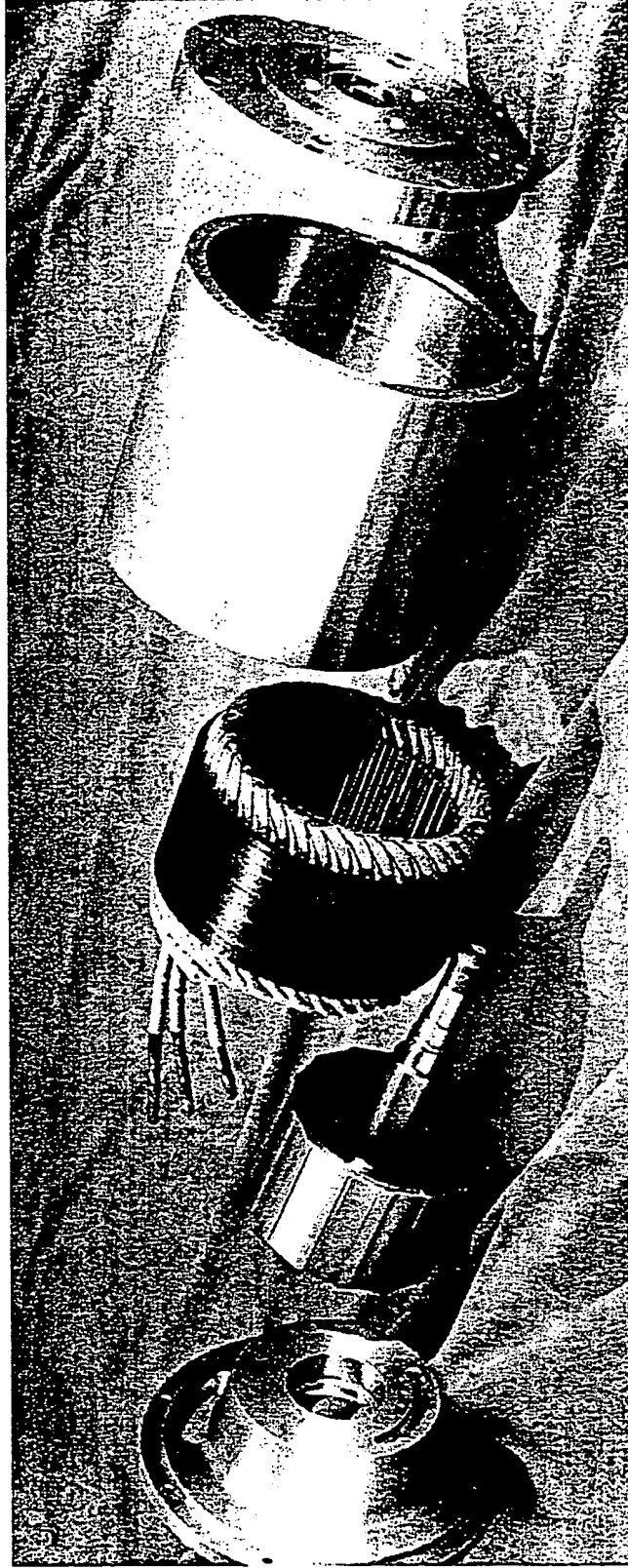


Tomorrow

Differentiation

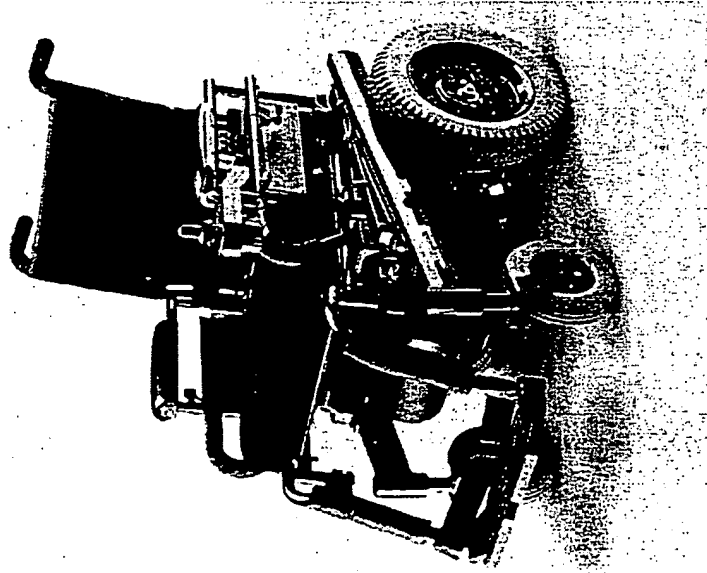
- Efficiency/range
- Performance
- Regenerative braking

10 HP Traction Motor

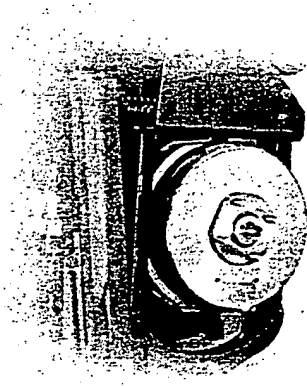


UQM

UQM® Gearless Brushless (GB™) Wheelchair Motor

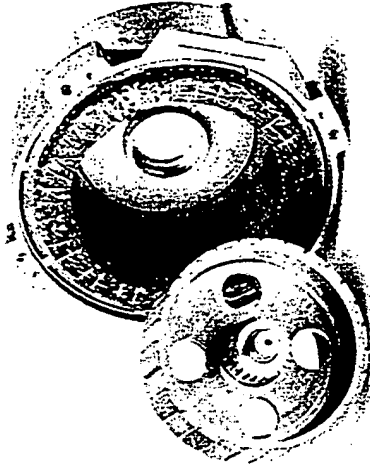


Invacare Storm wheelchair

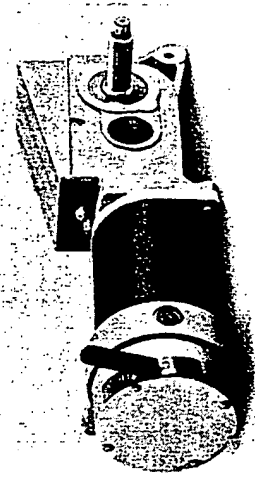


UQM®

gearless brushless
motor



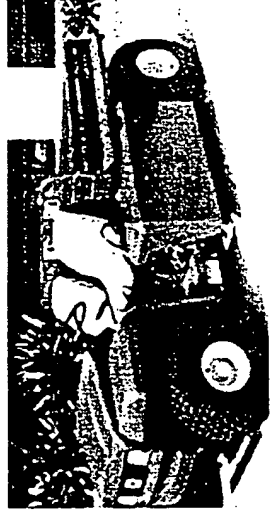
Traditional
power chair
motor



Low Power Vehicles Emerging Markets

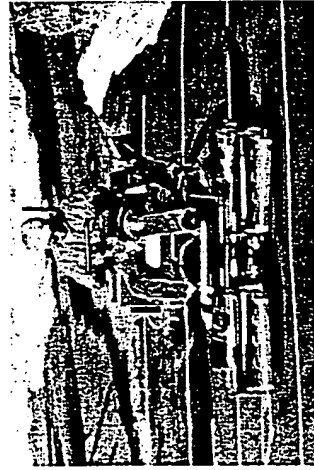
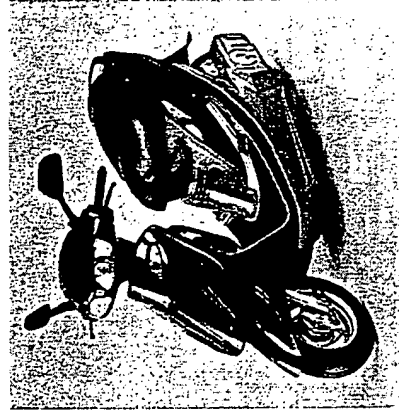


- Bicycles
- Motor scooters
- Go carts
- Lawn care products
- Neighborhood electric vehicles



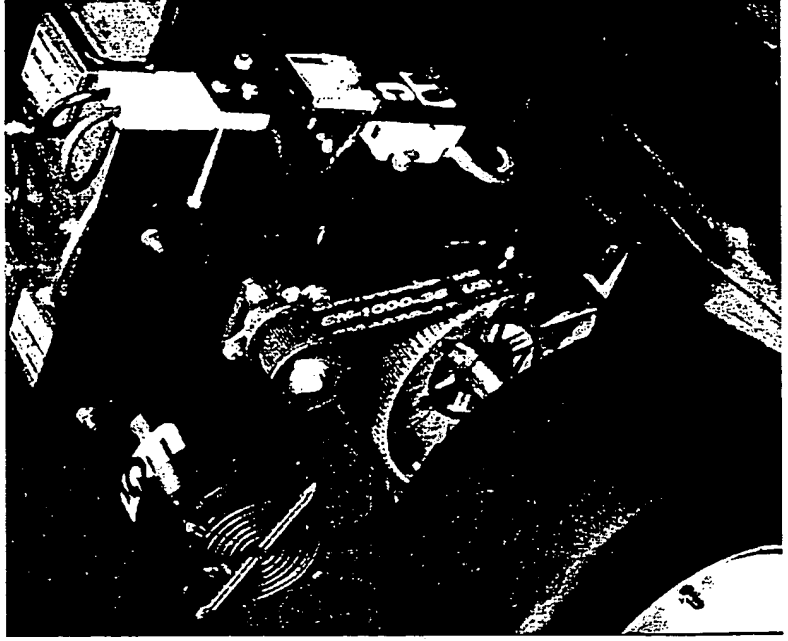
Leapfrog existing technology

- Power density
- Efficiency
- Performance



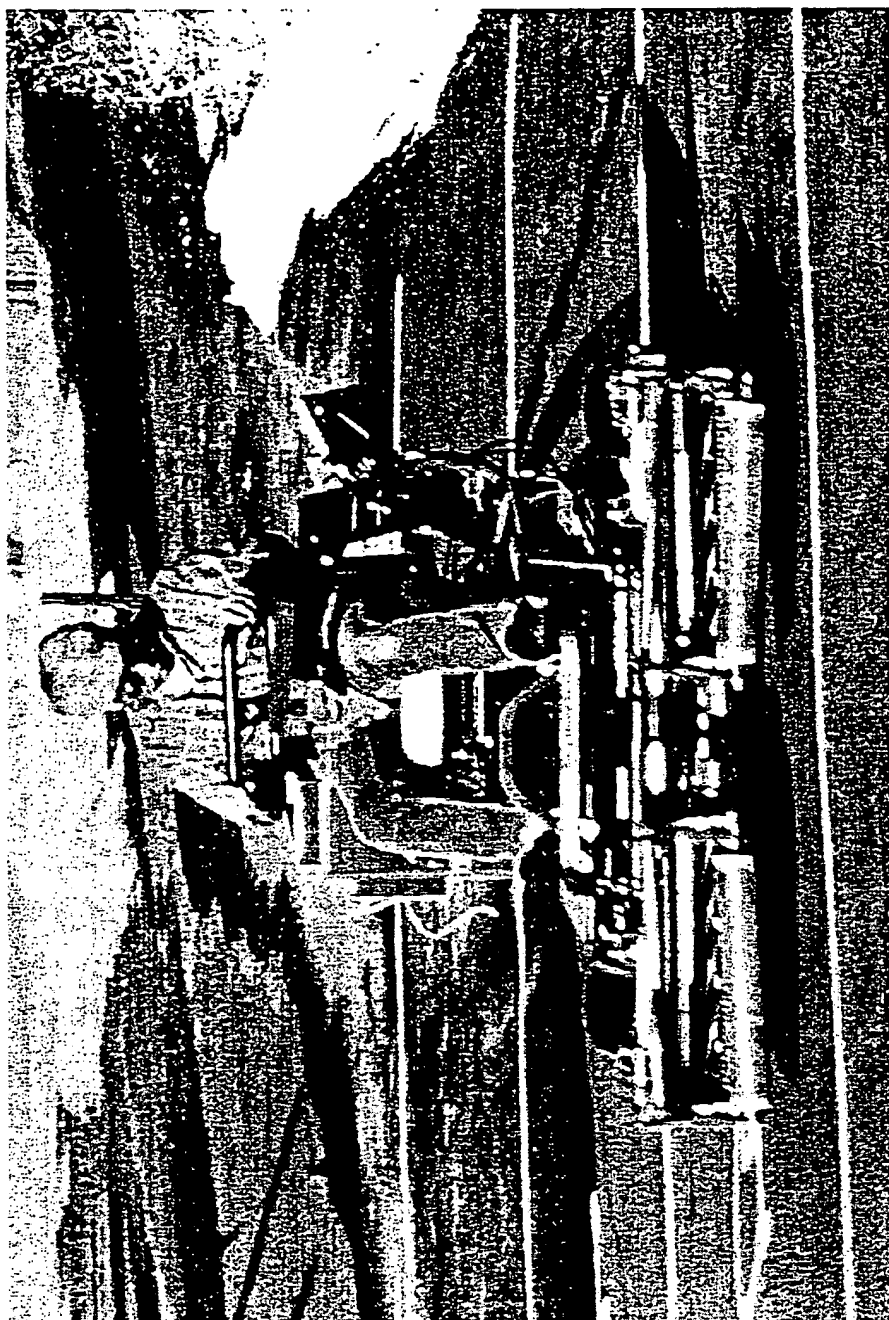
UCM

Go Cart

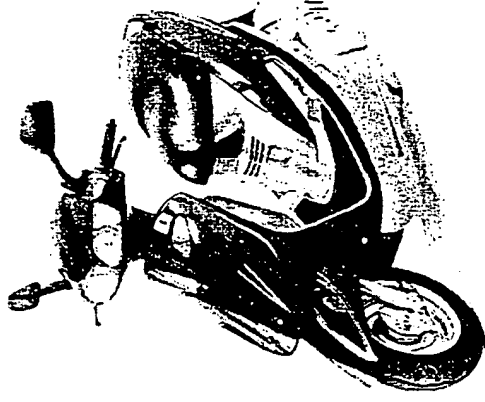


LEON

UOM

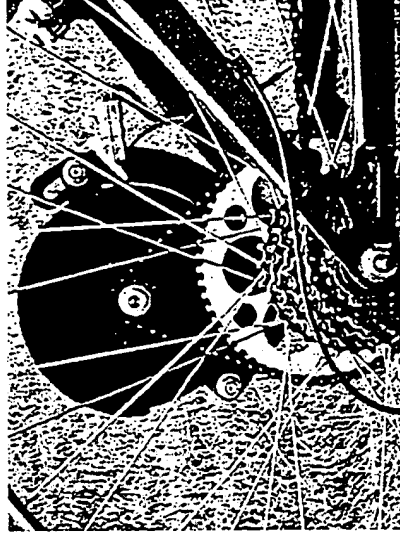
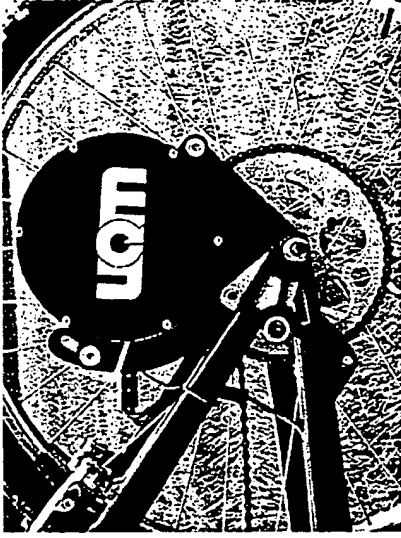


Electric Scooter Drive System



UQM

EVG Prototype Bike



UCM

High Power Hybrid Electric Vehicles

HMMWV



SR218
32 kW (43 hp)
drive system



Shuttle bus



SR286
75 kW (100 hp)
drive system



- **Military**

- **Bus**

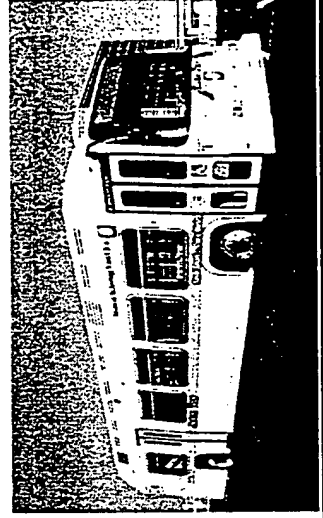
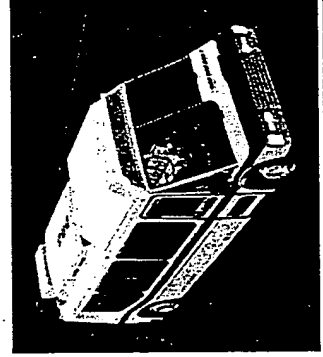
- **Truck**

- **Agricultural**

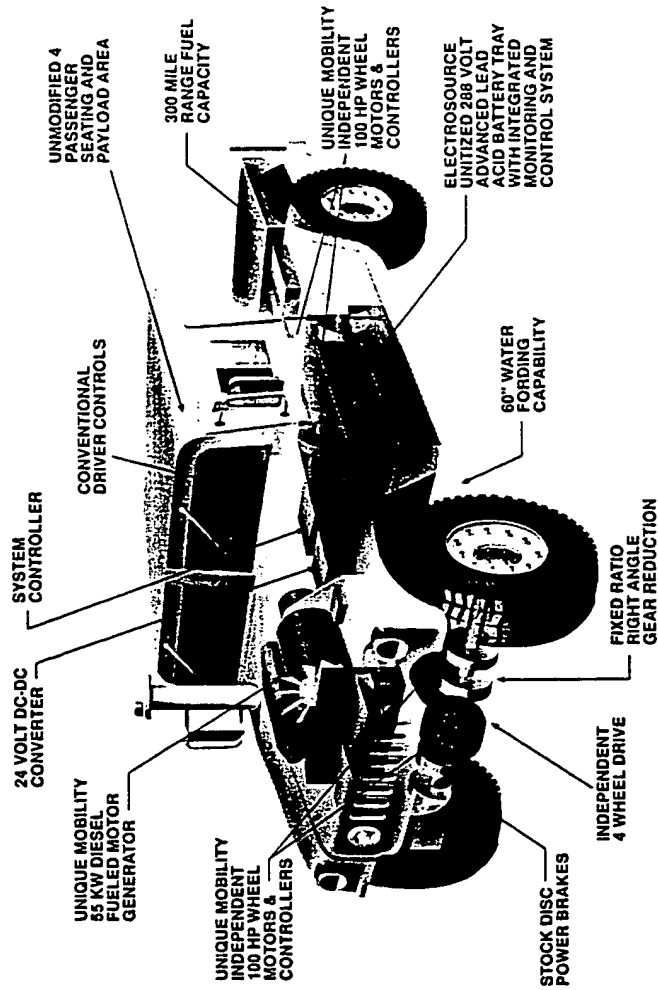
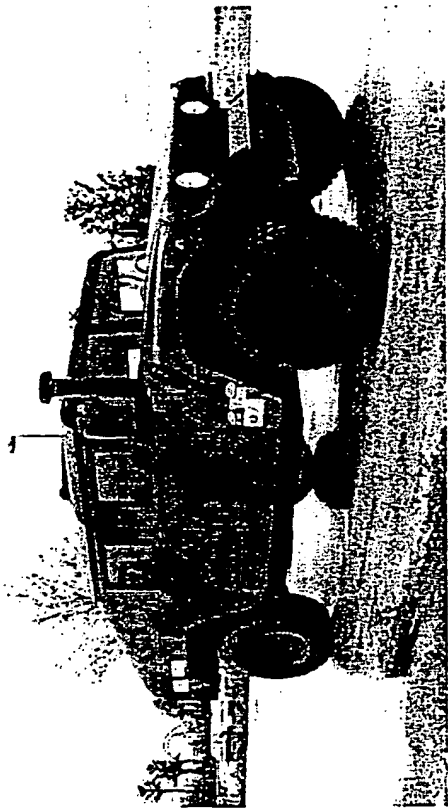
- **Construction**

- **Mining**

Orion **ATTB**



HMMWV



UQM

HYBRID ELECTRIC HMMWV

UQM

Strategy for Growth

- Aggressive product commercialization with large-scale manufacturing capability
- Strategic partnerships to access key markets
- Accretive acquisitions
- Maintain a technology lead

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